

CLAIMS

What is claimed is:

1. An apparatus, comprising:
a plurality of metalized planes;
one or more dielectric layers separating the plurality of metalized planes; and
one or more conductive trenches connecting to at least one of the plurality of metalized planes.
2. The apparatus of claim 1, wherein one or more of the plurality of metalized planes has a plurality of separate segments.
3. The apparatus of claim 2, wherein at least one of the conductive trenches connects to at least one of the separate segments.
4. The apparatus of claim 1, wherein at least one of the plurality of metalized planes connects to power.
5. The apparatus of claim 1, wherein at least one of the plurality of metalized planes connects to ground.
6. The apparatus of claim 3, wherein at least one of the separate segments connects to power.
7. The apparatus of claim 3, wherein at least one of the separate segments connects to ground.
8. The apparatus of claim 1, wherein at least one of the conductive trenches connects to least two of the metalized planes and one or more metalized planes in-between the connected metalized planes are isolated from the connecting conductive trench.

9. The apparatus of claim 1, wherein at least one of one or more conductive trenches is thermally conductive.
10. The apparatus of claim 1, wherein at least one of the one or more conductive trenches is electrically conductive.
11. A method, comprising:
obtaining a first dielectric core having a first metal coating;
patterning the first metal coating;
depositing a second dielectric layer over the first metal coating;
depositing a second metal coating over the second dielectric layer;
patterning the second metal coating;
drilling a plurality of vias;
forming one or more first trench grooves positioned to connect the first metal coating with the second metal coating; and
metalizing the trenches.
12. The method of claim 11, further comprising:
depositing a third dielectric layer over the second metal coating and the first trenches;
planarizing the third dielectric layer;
depositing a third metal coating over the third dielectric layer;
patterning the third metal coating;
forming one or more trench grooves;
coating the one or more trenches grooves with a conductive material, and
metalizing the plurality of vias.
13. The method of claim 12, wherein at least one of the second trenches connects the first metal coating with the second metal coating and is isolated from the third metal coating.

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14. The method of claim 12, wherein at least one of the second trenches connects the second metal coating with the third metal coating and is isolated from the first metal coating.
15. The method of claim 12, wherein at least one of the second trenches connects to the first metal coating with the third metal coating and is isolated from the second metal coating.
16. The method of claim 12, wherein the one or more trench grooves are formed with an imprint stamp.
17. The method of claim 12, wherein the one or more trench grooves are formed by an etch process.
18. The method of claim 12, wherein at least one of the trench grooves are formed in a "V" shape.
19. An apparatus, comprising:
 - a plurality of metalized planes;
 - one or more dielectric layers separating the plurality of metalized planes; and
 - means for conducting electricity from at least one of the plurality of metalized planes.
20. The apparatus of claim 18, further comprising; means for conducting heat from at least one of the plurality of metalized planes..